F. E. CUDELL.
Sewer-Gas Trap.

No. 201,161. Patented March 12, 1878.

Fig. 1.

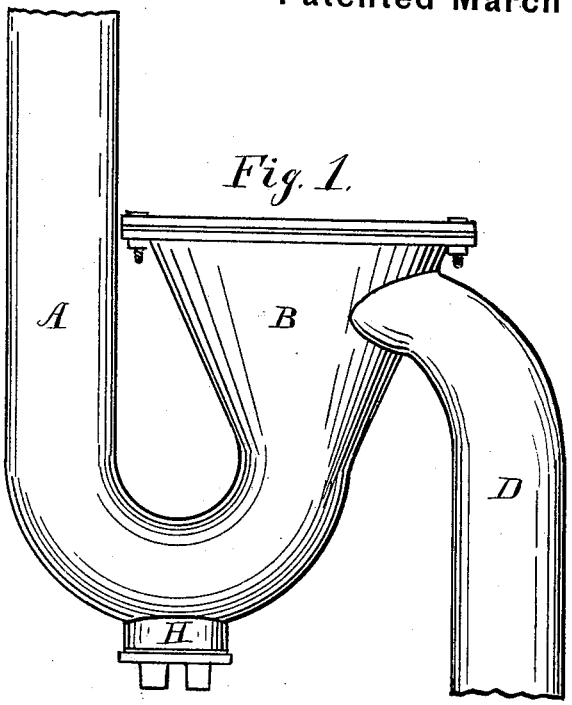
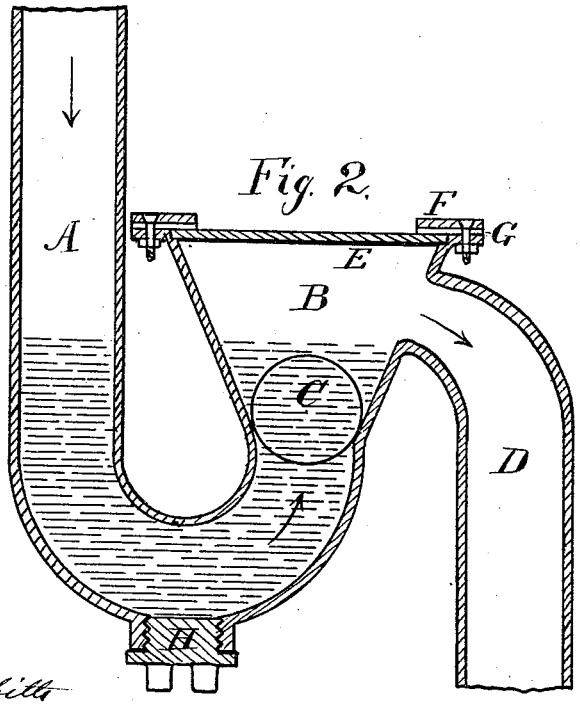


Fig. 2.



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UNITED STATES PATENT OFFICE

FRANK E. CUDELL, OF CLEVELAND, OHIO.

IMPROVEMENT IN SEWER GAS-TRAPS.

Specification forming part of Letters Patent No. **201,161**, dated March 12, 1878; application filed January 18, 1878.

To all whom it may concern:

Be it known that I, FRANK E. CUDELL, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Sewer Gas-Trap, which is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side elevation. Fig. 2 is a vertical section.

The object of my invention is to furnish a device by which to prevent the escape of sewer-gases upward through waste-water pipes in sinks, water-closets, and the like; and it consists of an S-shaped pipe having in the upper bend a funnel-shaped chamber, the lower portion of which, where it joins the pipe, forming the seat for the valve. The top of said chamber is made open, and is covered with a glass plate, secured with packing.

In the drawings, A is a descending pipe, having its lower end turned upward. B is a funnel-shaped chamber, rising from the aforesaid bend in pipe A. The intersection of said chamber with pipe A forms the seat for a ball-valve, C, which may be made of any substance heavier than water.

D is an outlet-pipe, leading from near the upper part of said chamber B. The top of the chamber is provided with a flange and rabbet, in which is fitted a plate of glass, E, secured by a ring, F, bolted to the flange, and having interposed a packing-ring, G. The lower bend in pipe A is provided with an opening closed with a plug, H, for the purpose of cleaning out the pipe when needed.

The operation of this is as follows: The water flows in the direction indicated by the arrows, which raises the valve. The seat of the valve is below the level of the overflow into the outlet-pipe. When the water stops flowing, the valve, being heavier than the water, readily descends to its seat, and, being under water, forms a perfect seal against the escape of sewer-gases, for any pressure from the gases serves also to hold the valve down; and should the water in the pipe and chamber entirely dry away, the valve closes the passage all the same.

In the drawing, the valve is represented as round, this being most convenient; but the valve may be made in any other form or shape that serves the same purpose. By the use of the glass top to the chamber B, the interior may be readily examined.

Having described my invention, I claim—

In a sewer gas-trap, the pipe A, provided with the funnel-shaped chamber B, the top of which is covered with glass E, secured by a ring, F, and suitable packing G, the lower part of said chamber constituting the seat for the valve C below the line of overflow to outlet-pipe D, all constructed, combined, and operating substantially as and for the purpose set forth.

F. E. CUDELL.

Witnesses:
F. W. CADWELL,
GEO. W. TIBBITTS.